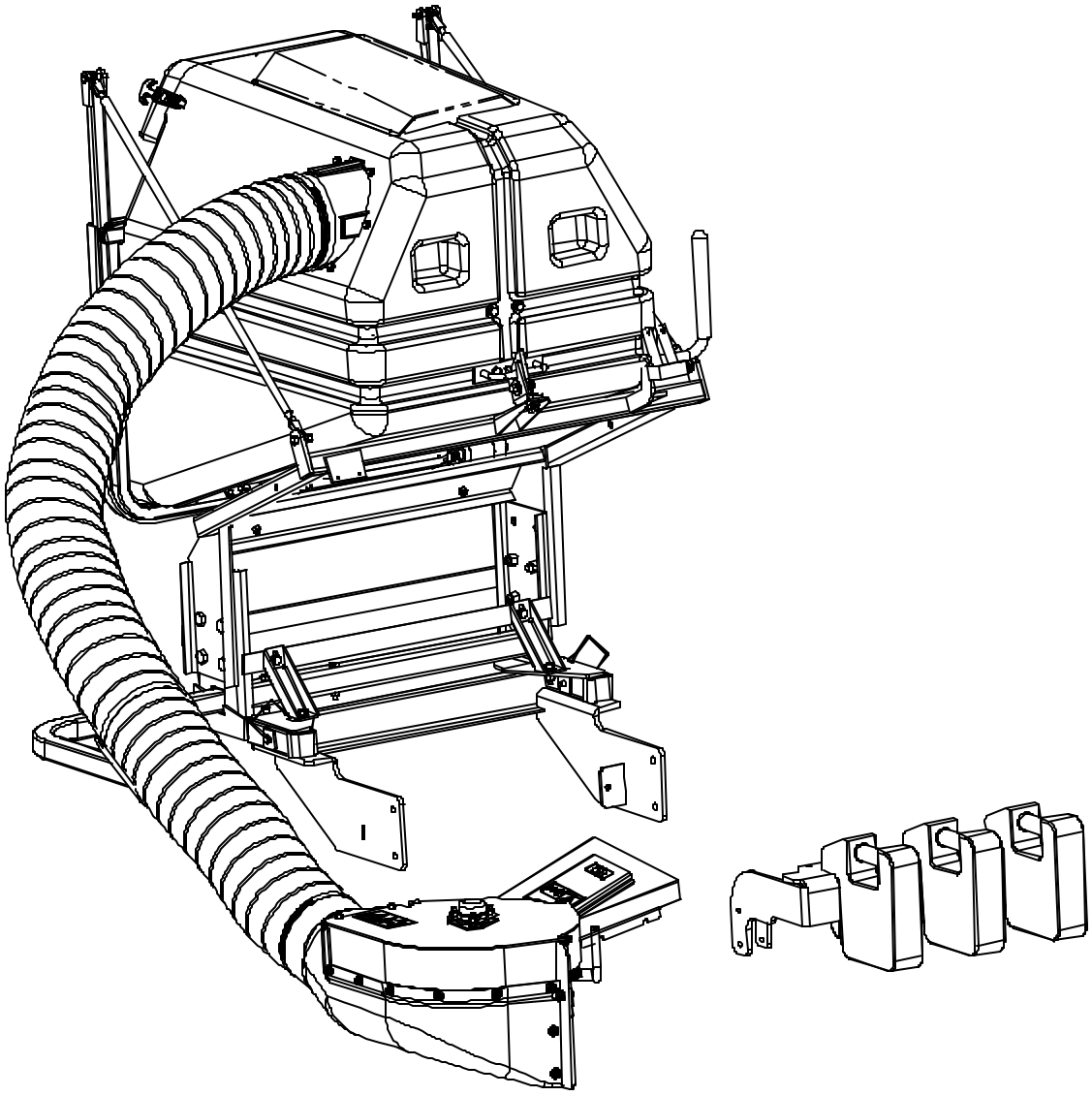
YAZOO / KEES

Z9 Commercial Collection System

Operator and Parts Manual



Models: Z9A

Please read these instructions carefully and make sure you understand them before using the machine.

Manual No. 200897 Rev. 02 (10-30-03)

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WARNING: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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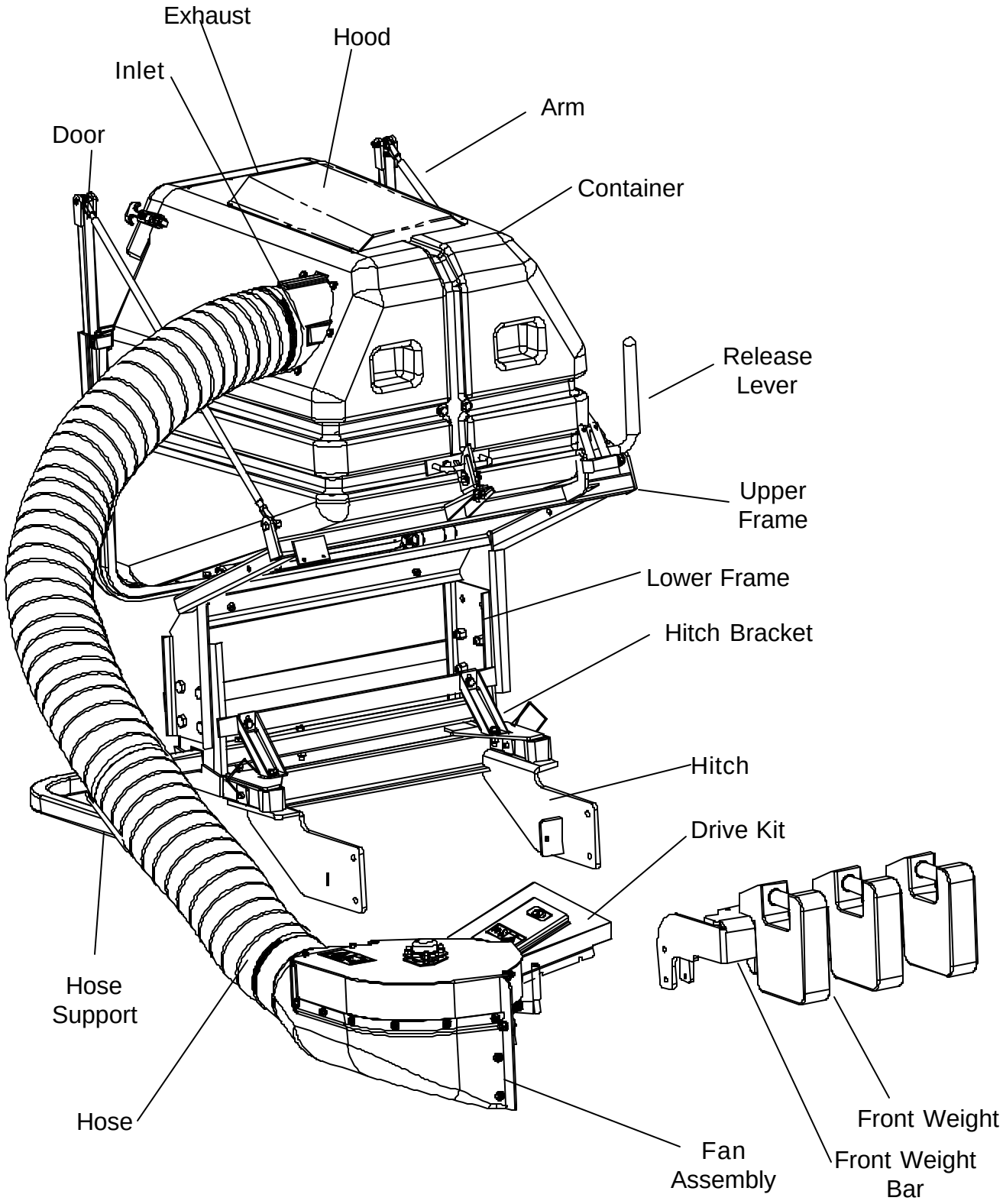
SPECIFICATIONS

Height	47 - 50 in. (119 - 127 cm.)
Length	38 in. (97 cm.)
Width (without hose or blower)	34.5 in. (94 cm.)
Width (with hose and blower)	49 in. (124 cm.)
Deck Options	42” 48”
Weight (without spindle drive/blower assembly)	170 lb. (77 kg.)
Weight (with spindle drive/blower assembly)	235 lb. (107 kg.)
Total Capacity	11.5 cu ft (9.2 bu. or 0.33 m^3)
Usable Capacity	8 cu ft (6.4 bu. or 0.23m^3)
Hose	7 in. (18 cm.)

FEATURES & CONTROLS



NOTE: Your Front Weight Bar and Hitch may look different from those shown in this diagram.

SAFETY RULES

General Information

This manual will assist you in the safe operation and proper maintenance of your Yazoo/Kees equipment. Read it thoroughly before attempting to operate the machine. Call your dealer or Yazoo/ Kees Customer Service if additional information is required.

The following safety symbols are used throughout the manual to alert you to information about unsafe actions or situations:

DANGER indicates immediate hazards that may result in severe injury or death.

WARNING indicates unsafe actions or situations that may cause severe injury, death, and/or major equipment or property damage.

CAUTION indicates unsafe actions or situations that may cause injury and/or minor equipment or property damage.

This equipment should not be modified without the manufacturer's prior written authorization. Doing so may not only affect the equipments' performance and durability, but also create safety hazards for the operator and the surroundings. Warranty will be void if changes are made to the equipment without the manufacturer's prior written authorization.

Safety Procedures

1 - Training:

- Read the Operator's manual. If the operator(s) or mechanic(s) can not read English it is the owner's responsibility to explain this material to them.
- Become familiar with the safe operation of the equipment, operator's controls, and safety signs.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people, and/or property.

2 - Preparation:

- Wear appropriate clothing including hard hat, safety glasses and ear protection. Long hair, loose clothing or jewelry may get tangled in moving parts.
- Inspect the area where the equipment is to be used and remove all objects such as rocks, toys and wire which can be thrown by the machine.
- Use extra care when handling gasoline and other fuels. They are flammable and vapors are explosive. Use only an approved container. Never remove gas cap or add fuel with engine running. Allow engine to cool before refueling. Do not smoke while fueling or operating equipment. Never refuel or drain the machine indoors.
- Check that operator's controls, safety switches, hoses, and shields are securely attached and functioning properly. Do not operate unless they are functioning properly.

SAFETY RULES

3 - Operation

- Never run an engine in an enclosed area.
- Only operate in good light, keeping away from holes and hidden hazards.
- Slow down and use extra care on hillsides. Make turns gradually and at slow speed. Do not operate across the sides of slopes. Operate up and down slopes only. Do not operate on steep slopes.
- Turf conditions can affect the machine's stability. Do not operate on wet grass where traction may be reduced.
- Do not change the engine governor setting or overspeed the engine.
- Stop equipment and inspect vacuum impellar and hoses after striking objects or if an abnormal vibration occurs. Make necessary repairs before resuming operations.
- Look behind and down before backing up to ensure a clear path.
- Slow down and use caution when making turns and crossing roads and sidewalks. Stop vacuum and mower blades if not mowing.
- Do not operate machine under the influence of alcohol or drugs.
- Use care when loading or unloading the machine into a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

4 - Maintenance and Storage:

- Stop engine and disconnect spark plug wire. Wait for all movement to stop before adjusting, cleaning, or repairing.
- Clean grass and debris from muffler and engine to help prevent fires. Clean up oil or fuel sillage.
- Let engine cool before storing and do not store near flame.
- Shut off fuel while storing. Do not store fuel near flames or drain indoors.
- Never allow untrained personnel to service machine.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.

ASSEMBLY

Unpacking Instructions

1. Wear gloves and eye protection. Remove wood pieces.
2. Cut straps around carton and remove top.

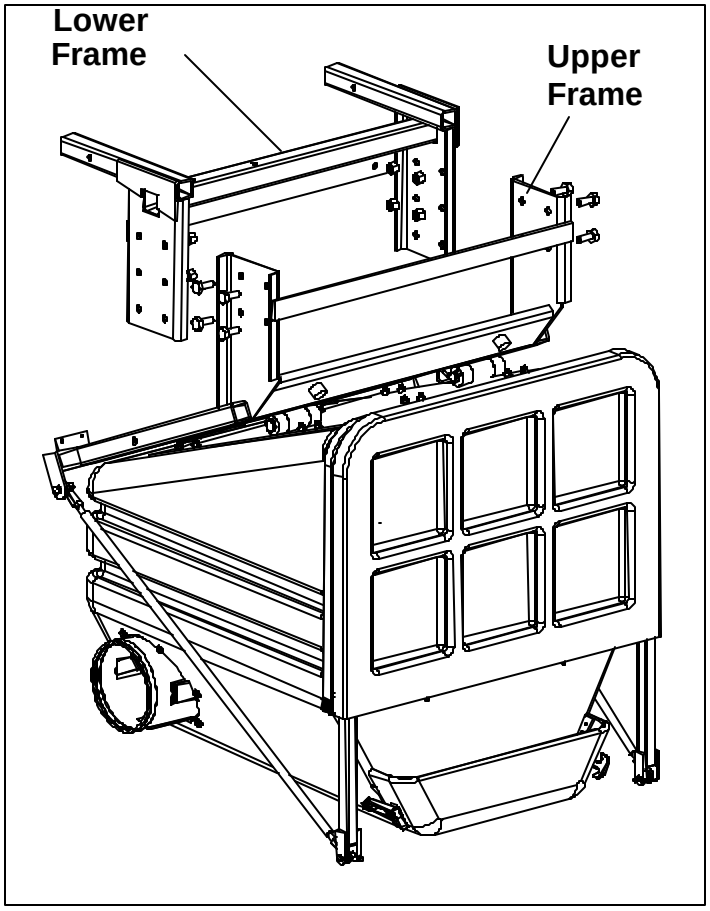
NOTE: Watch for nails and wood splinters.

3. Slide carton sleeve out of bottom tray and lift over Z9.

Assembly Instructions

Frame Assembly

Tools Required:
1. 3/4" wrench
2. Ratchet
3. 3/4" socket



1. Position the Lower Frame inside the Upper Frame.
2. Align holes corresponding to desired position of frame.
3. Secure with eight (8) 1/2” x 1-1/4” hex bolts and eight (8) 1/2” nylon lock nuts.

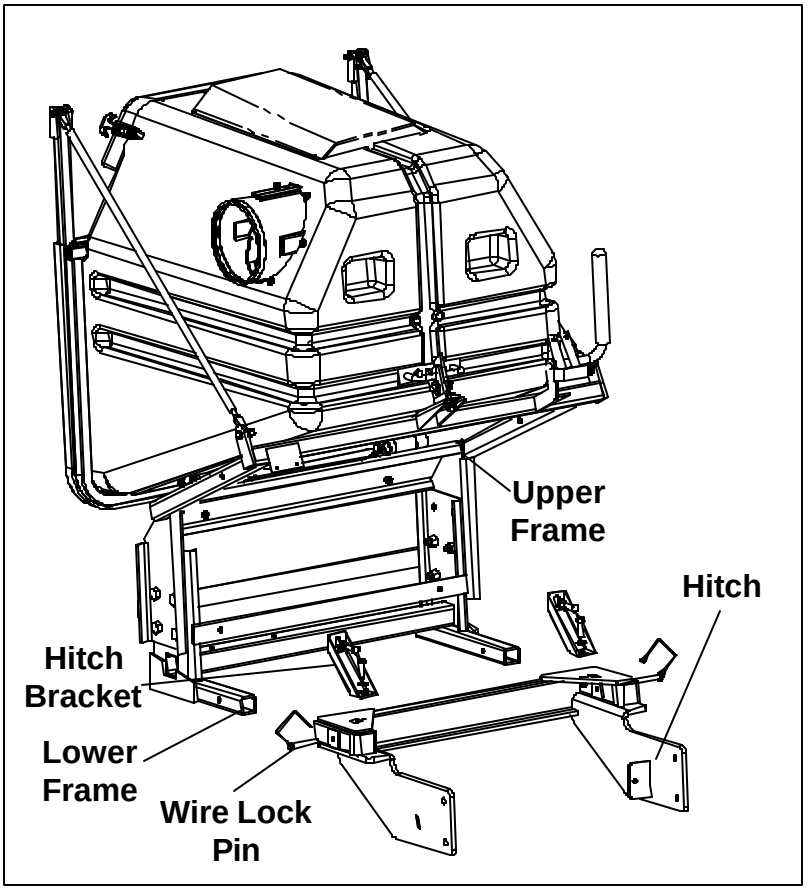
ASSEMBLY

Mounting the Z9

NOTE: This portion of the assembly requires lifting the Z9; two people are required.

Tools Required:

1. 9/16" wrench
2. Ratchet
3. 9/16" socket



1. Install the Hitch from the Custom Kit according to the instruction sheet included in that carton.
2. Slide the Z9 into the hitch.
3. Line up holes in the Hitch and Z9 and secure with two (2) 3/8" wire lock pins.
4. Position the Hitch Brackets so that they are aligned with the holes on the top plate of the Hitch and the holes in the forward cross bar of the Lower Frame.
5. Secure with four (4) 3/8" x 1-1/4" hex bolts, four (4) 3/8" nylon lock nuts, and eight (8) 3/8" flat washers.

Spindle Drive & Drive Kit Assembly

For use on mowers equipped with either a 42", 48", 52" or 61" deck:

1. Remove the discharge chute.
2. Remove the right hand belt shield.
3. Remove the deck belt from the right spindle assembly sheave.
4. Remove this sheave but keep the ¼" square key and the two washers at hand for reinstallation.
5. Install the Stepped Sheave and spacer/key retainer included in the kit using the original key and washers but substituting the original 7/16" HCS with the longer version provided. An application of anti-seize is recommended.
6. Reinstall the deck belt.
7. The 5/8" hole toward the rear of the ¼" thick discharge chute mounting bar at the right end of the deck may be distorted from forming or loaded with paint. Drill out or fill this hole until it will accept a 5/8" bolt or piece of bar stock. Keep the fit close.
8. If any weld beads or the edge of the deck top project past the right end surface of the deck, these must be ground back to allow the fan assembly to fit up flush to the end of the deck.
9. Remove the 3/8" fastener, nut, and clamp from the inside front corner of the fan assembly.
10. Remove the sheave floor to expose the fan assembly belt sheave from below.
11. Loosen the nut retaining the belt guide/retainer, install the belt from the Drive Kit, retighten the nut, verify the belt clears the guide, and reinstall the sheave floor.
12. Rest the fan assembly onto the deck end and slide the pilot thru the 5/8" hole previously mentioned so that fan assembly is supported by the pilot and the ¼" stop block welded under the clamp at the front of the fan assembly.
    Note: **It may be necessary to swing the idler pulley away from the assembly mounting face to clear the chute mounting bar and the discharge chute mounting tab on the deck.**
13. Reinstall the clamp at the front of the assembly so that the tab at the lower end of the clamp passes thru the rectangular slot at the right front corner of the mower deck, but leave the fastener loose to ease belt installation.
14. Rotate the belt idler as far forward as possible and install the belt over the top groove of the new deck sheave.
15. Tighten the clamp fastener.
16. Using a scribe or other small sharp object, transfer the mounting hole location at the rear edge of the fan assembly onto the mating vertical surface at the right rear of the mower deck and drill thru with a 25/64" drill.
17. Install the stops on the deck stop pins located at the rear of the deck then install the new belt shield.
18. Install the tube support to the main collection assembly using the 3/8" fastener provided, positioning so that the tube is 2" to 3" away from the tire.
19. Install the 7" hose to the fan assembly and the container input port using the hose clamps provided.
20. Clamp the tube to the tube support.

ASSEMBLY

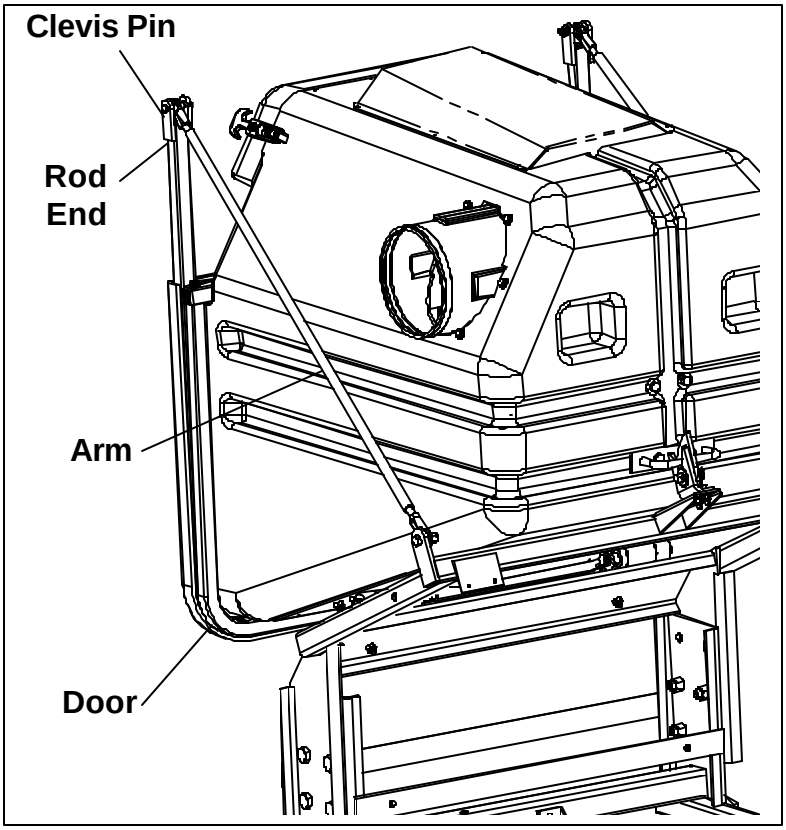
Hose Trimming

Tools Required: Utility Knife

1. Carefully measure the length needed. Remember that although the hose is flexible, it will not stretch.
2. Measure the same length on the hose that needs to be trimmed, and with the utility knife, cut through the webbing at the proper location.
3 Continue that cut through the webbing all the way around the hose so that it finishes just across the support coil from where the original cut was started.
4. Use the utility knife to score the support coil between the beginning and end of the web cut. Set aside the knife, and finish breaking the coil by hand by working the scored portion back and forth until it breaks apart.

Door Tightness Adjustment

Tools Required:
1. 9/16" Wrench
2. Ratchet
3. 9/16" Socket
4. Clamps



1. Remove arms from door by removing the 3/8” x 1-3/4” clevis pins.
2. Clamp door tightly shut.
3. Adjust arm length so that rod ends on arms can be fastened to the door.
4. Fasten arms to door.
5. If door is still too tight or too loose, repeat steps 1-4 and adjust the clamp tightness until door is at desired tightness.

OPERATION

Operating the Vacuum

1. **NEVER USE THE Z9 WITHOUT ALL HOSES AND SHIELDS SECURELY ATTACHED.**
2. Make sure all hoses are connected at both ends. Inspect hoses prior to each use.
3. Do not use the Z9 on slopes greater than 15 degrees.
4. The mower must be running in order to vacuum debris through the mower deck.
5. In heavy grass it may be necessary to mow and vacuum at a slower ground speed.
6. Never attempt to unclog the Z9 until both the mower's engine and vacuum's engine have been shut off and all moving parts have come to a complete stop.
7. Do not stand behind the vent at the rear of the Z9 due to the potential for small pieces of blowing debris to escape through this vent.
8. Wear eye and ear protection.

SERVICE AND MAINTENANCE

Transport

WARNING

The Z1-9 container must be completely empty while driving forward onto a trailer. If the Z1-9 must be loaded onto a trailer while there is still debris in the container, the mower must be backed up onto the trailer to avoid tipping.

Cleaning and Washing

Regular cleaning, washing, and lubricating will prolong the service of the machine.

NOTE: Use care with power washers to avoid damage to decals. Limit direct spray on these items.
DO NOT EXCEED 1000 PSI WATER PRESSURE FOR CLEANING.

For best results, clean exhaust screen inside container regularly. Instructions for doing this can be found in the Service section of this manual.

Storage

1. Refer to engine manufacturer's instructions for engine storage information.
2. Clean machine.
3. Cover all scratches with touch-up paint.
4. Covered or indoor storage is recommended.

Preventative Maintenance Schedule

Item	Before Each Use	Every 5 Hours	Every 25 Hours	Every 50 Hours
Check Engine Oil Level	X	X		
Change Engine Oil			X	
Change Air Cleaner Element			X	
Replace Spark Plug				X
Inspect/Clean Exhaust Screen	X	X		
Check/Tighten Nuts & Bolts	X			
Check/Tighten Hoses	X			
Turn Hose End to End			X	
Rotate Hose				X
Clean Machine				X

SERVICE AND MAINTENANCE

Caring For Vacuum Hoses

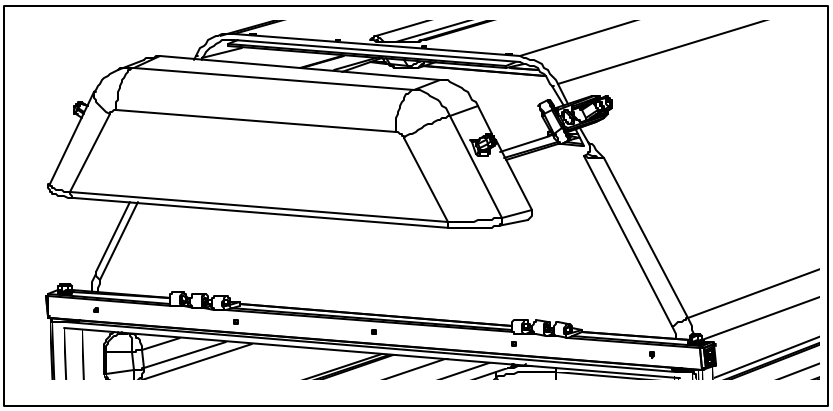
1. Inspect hoses before each use. If hoses have excessive wear, tears, or punctures, replace immediately.
2. To prolong the life of the hose, periodically rotate hose and turn hose end to end. Refer to Preventative Maintenance Schedule in this manual.
3. Avoid twists and sharp turns in the hoses, as they will increase wear on the hoses.
4. Avoid dragging the lower hose along the sides of buildings or other hard surfaces.

Cleaning Exhaust Screen

The exhaust screen on the Z9 is located inside the container. For best results, clean exhaust screen regularty.

Cleaning Instructions
1. Shut off all engines.
2. Release the two (2) rubber latches on the sides of the filter cover, and slide screen out.
3. Clean the screen, and replace.

DO NOT USE THE Z9 WITHOUT EXHAUST SCREEN SECURELY IN PLACE.



SERVICE AND MAINTENANCE

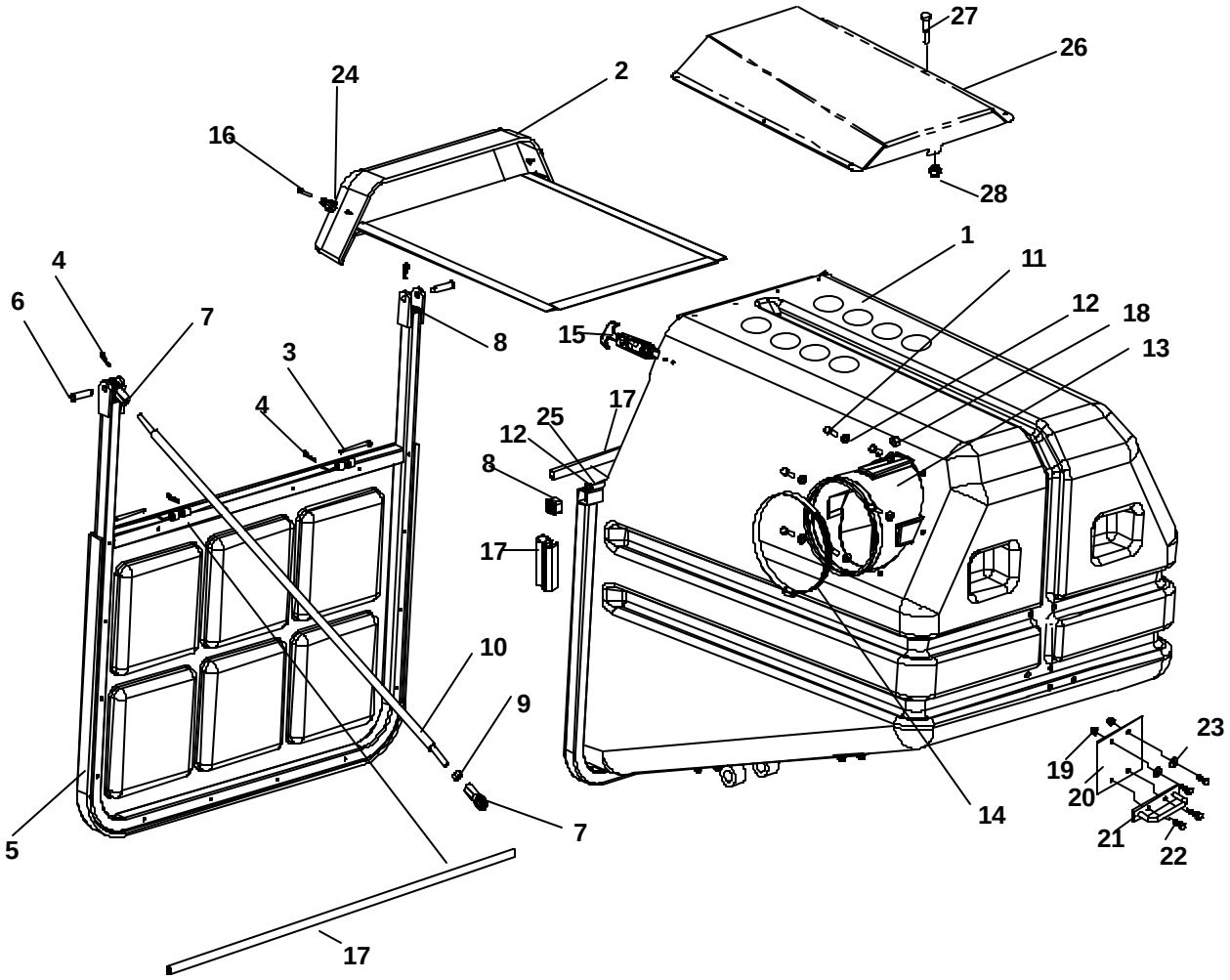
Troubleshooting Guide

! DANGER **!**
Before servicing unit wait for all moving parts to come to a complete stop. Turn engine off and remove the spark plug wire.

PROBLEM	POSSIBLE CAUSE	CORRECTION
Engine Does Not Start.	1. Spark plug wire disconnected.	1. Reconnect wire.
	2. Engine ON/OFF switch in OFF position.	2. Put switch in ON position.
	3. Fuel tank empty.	3. Add gasoline.
	4. Stale gasoline.	4. Drain gasoline and add fresh gasoline.
	5. Dirty air filter.	5. Clean or replace.
Engine Runs Poorly.	1. Bad spark plug.	1. Inspect spark plug.
	2. Dirty air filter.	2. Clean or replace.
	3. Incorrect choke setting.	3. Put choke in correct setting.
	4. Stale gasoline.	4. Drain gasoline and add fresh gasoline.
	5. Dirt or water in fuel tank.	5. See engine service dealer.
Engine Overheats.	1. Carburetor out of adjustment.	1. See engine service dealer.
	2. Oil level is low.	2. Check and add oil.
Loss of Vacuum.	1. Vacuum inlet clogged.	1. Remove hose and clean inlet.
	2. Container full.	2. Inspect and empty.
	3. Engine not reaching full RPM.	3. See “Engine Runs Poorly” above.
	4. Fan blades bent or broken.	4. Replace/repair impeller.
Unusual vibration or noise.	1. Solid object jammed in unit.	1. Check and remove any obstruction.
	2. Engine crankshaft bent or damaged.	2. See engine service dealer.
	3. Loose engine mounting bolts/nuts.	3. Tighten bolts/nuts.
	4. Loose or missing bolts on unit.	4. Tighten or replace bolts.
	5. Engine shaft bearings damaged.	5. See engine service dealer.
	6. Impeller bent or damaged.	6. Repair/replace impeller.
Unit difficult to close.	1. Door too tight.	1. Adjust arm tightness
	2. Obstructions keeping door from completely closing.	2. Clear obstructions.
Door doesn’t shut tightly.	1. Door tightness not adjusted correctly.	1. Adjust arms.

PARTS ILLUSTRATION

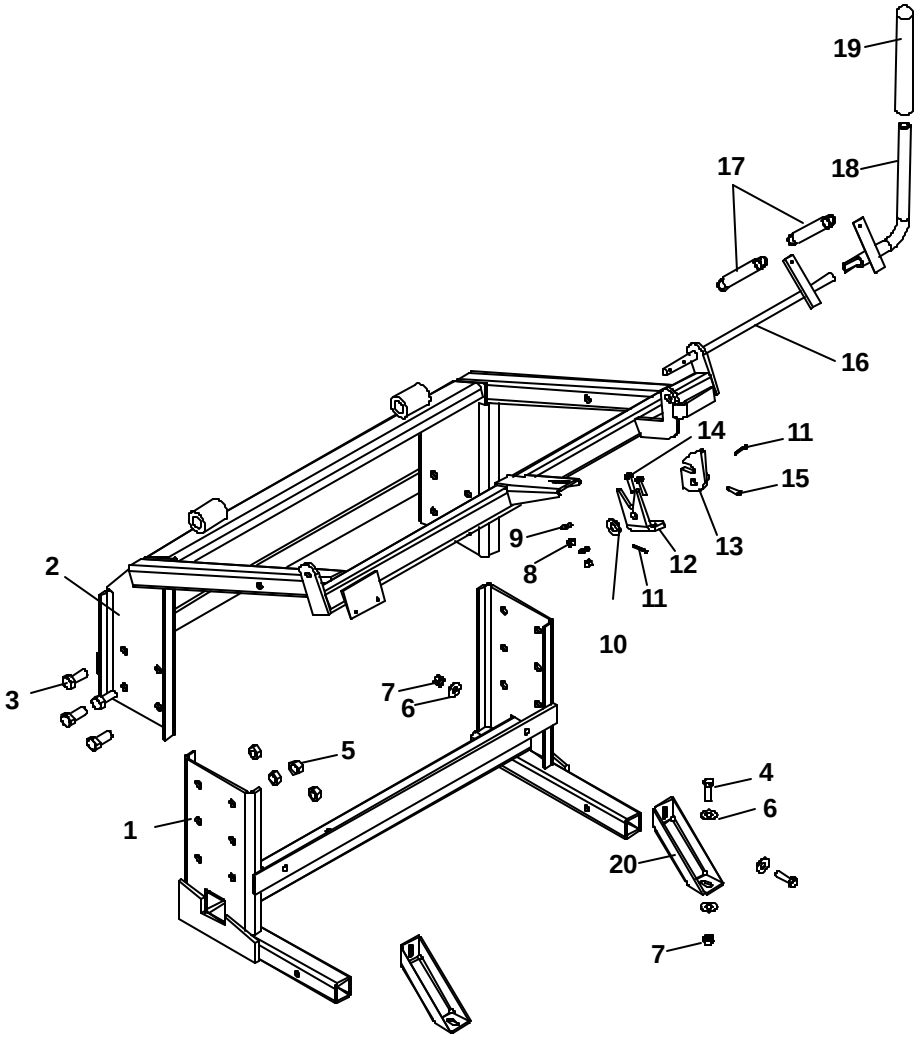
CONTAINER ASSEMBLY



CONTAINER ASSEMBLY

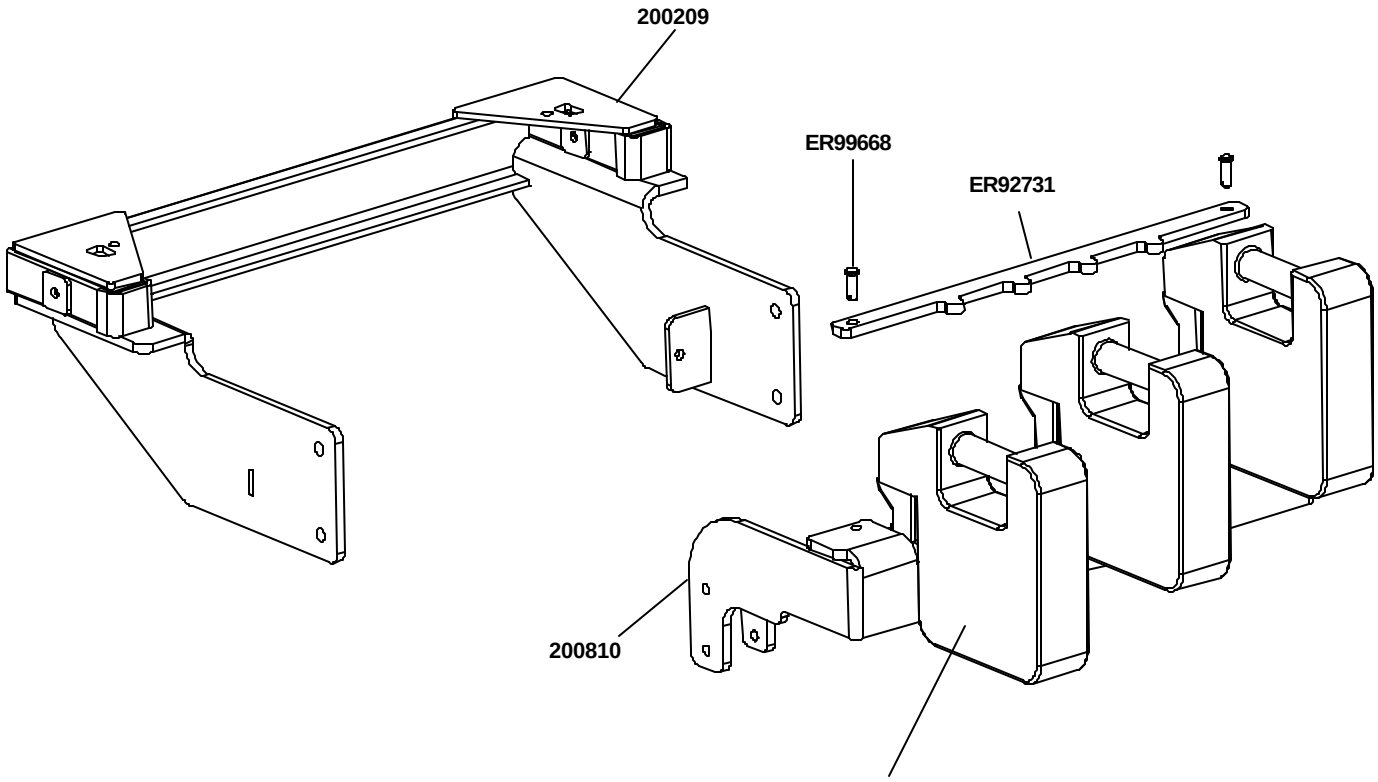
ITEM	PART NO.	QTY	DESCRIPTION
1	108970	1	CONTAINER ASM.
2	200876	1	EXHAUST ASM.
3	200691	2	CLEVIS PIN 1/4 X 2 3/4
4	ER99082	4	HAIR PIN #13
5	200875	1	DOOR ASM.
6	200692	2	CLEVIS PIN 3/8 X 1 3/4
7	30425	4	ROD END
8	200690	4	PLUG
9	0224	2	NUT 3/8-24
10	200520	2	ARM
11	ER99008	6	BOLT, 1/4-28 X 1
12	0405	12	WASHER 1/4 FLAT
13	200408	1	INLET
14	ER97076	1	HOSE CLAMP
15	200478	2	RUBBER LATCH
16	200641	6	SCREW, 10-24 X 1 1/4, P.T.H.
17	108134	1	DOOR SEAL KIT, (CONTAINS 3 SEALS)
18	ER99072	6	NUT, 1/4-20, NYLOC
19	ER99065	4	NUT, 3/8-16, NYLOC
20	200688	1	BACK PLATE
21	200695	1	LATCH
22	0168	4	BOLT, 3/8-16 X 1
23	0417	2	WASHER, 3/8
24	200423	2	LATCH BASE
25	0134	2	BOLT, 1/4-20 X 2
26	109399	1	HOOD
27	108535	6	SCREW #10-24 X 3/4 STD RD
28	976977	6	NUT #10-24, NYLOC
	02004	6	NUT #10 NYLOC (NOT SHOWN)
	0403	6	WASHER, #10 (NOT SHOWN)

FRAME ASSEMBLY



ITEM	PART NO.	QTY	DESCRIPTION
1	62072	1	LOWER FRAME
2	200510	1	UPPER FRAME
3	ER99069	8	BOLT, 1/2-13 X 1 1/4
4	ER99020	4	BOLT, 3/8-16 X 1 1/4
5	ER93082	8	NUT, 1/2-13, NYLOC
6	0415	8	WASHER, 3/8
7	ER99065	4	NUT, 3/8-16, NYLOC
8	ER99072	2	NUT, 1/4-20, NYLOC
9	0405	2	WASHER, 1/4
10	0425	1	WASHER, 1/2
11	03585	2	PIN, COTTER, 3/32 X 3/4
12	200423	1	LATCH BASE
13	200708	1	LATCH CATCH
14	ER99008	2	BOLT, 1/4-20 X 1
15	0382	1	PIN, CLEVIS, 3/16 X 1
16	200710	1	LATCH ROD
17	10195	2	SPRING
18	200712	1	LATCH HANDLE
19	61481	1	HANDLE GRIP
20	61532	2	HITCH BRACKET

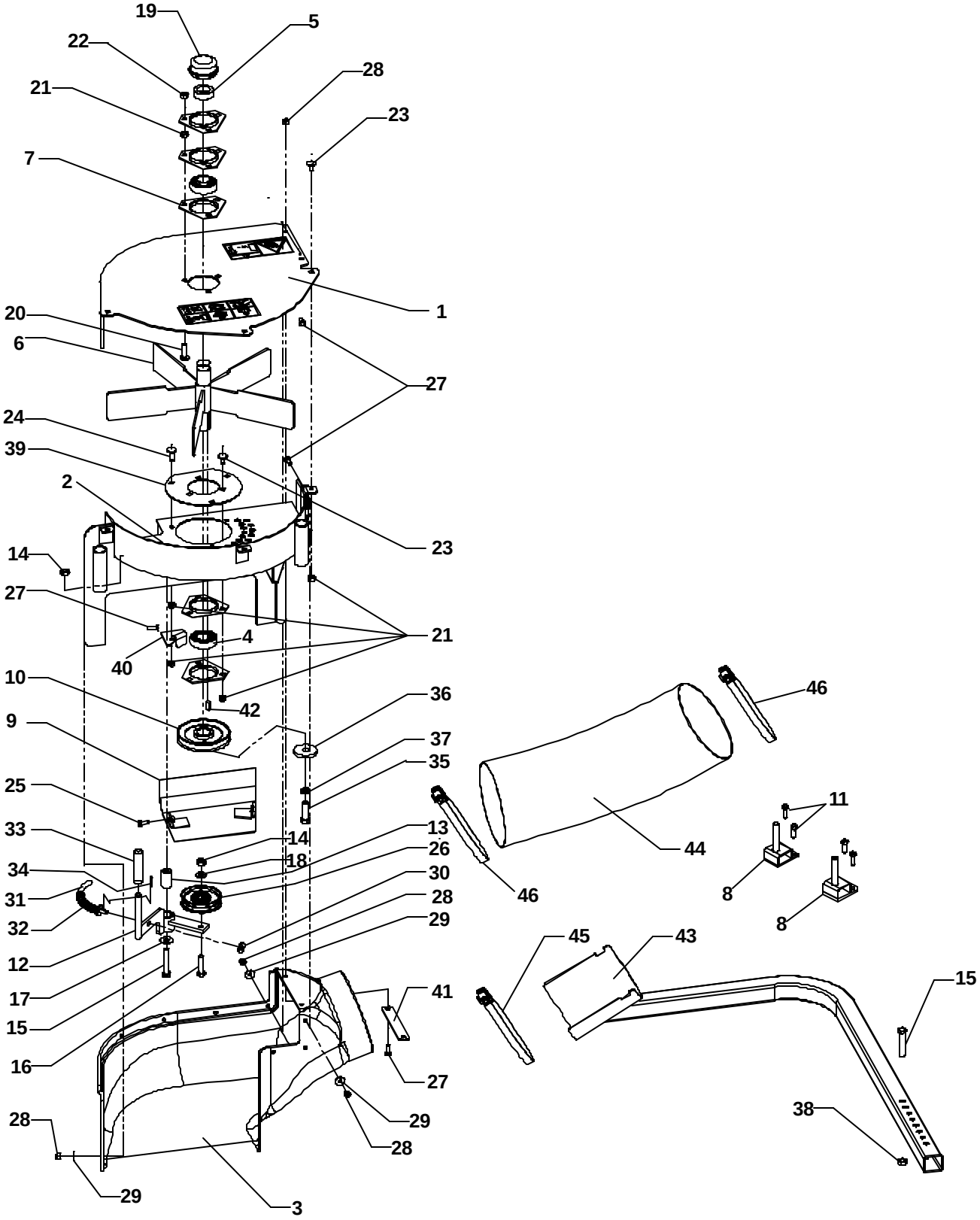
HITCH & FRONT WEIGHT BAR ASSEMBLY



ER92531 FRONT WEIGHT
QTY 2 INCLUDED WITH COLLECTION UNIT
QTY 1 INCLUDED WITH CUSTOM KIT

SEE INSTRUCTION SHEET INCLUDED WITH CUSTOM KIT FOR PARTS LIST.

SPINDLE DRIVE ASSEMBLY

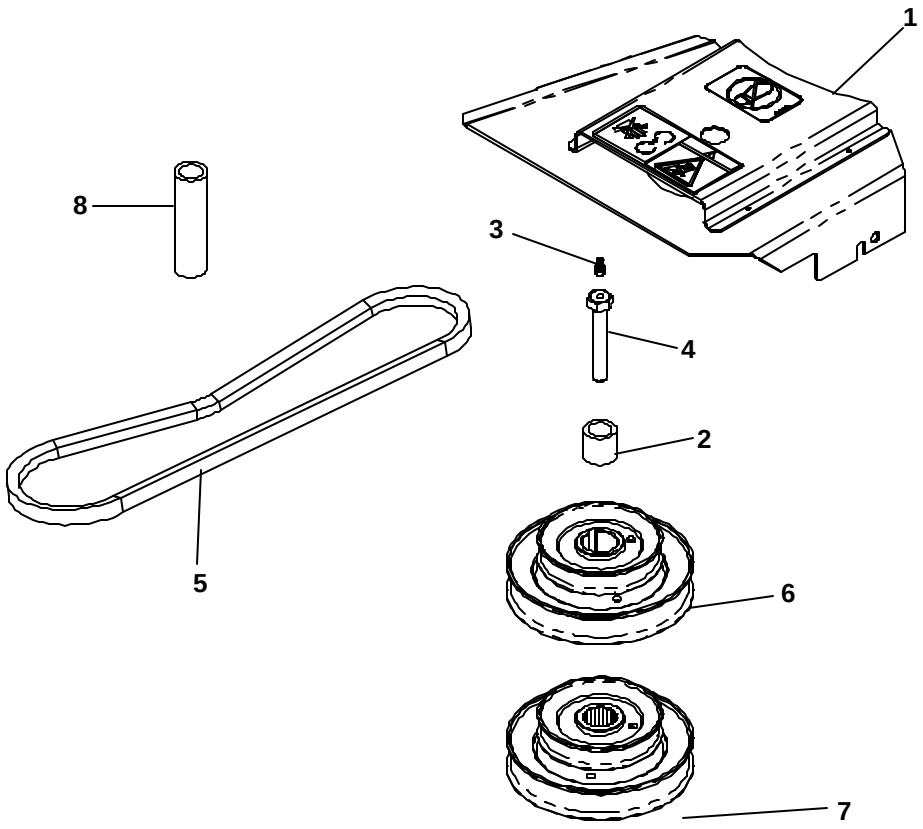


SPINDLE DRIVE ASSEMBLY

ITEM	PART NO.	QTY	DESCRIPTION
1	106752	1	FAN COVER W/DECALS
2	108941	1	UPPER HOUSING
3	109900	1	LOWER HOUSING
4	106786	2	BEARING W/O COLLAR
5	106786	1	LOCKING COLLAR
6	106707	1	FAN WLDMT.
7	102691	5	FLANGETTE
8	108944	2	BLOWER PIN WELDMENT
9	108301	1	SHEAVE FLOOR
10	106713	1	SHEAVE, 4”
11	976941	4	HCS 3/8-16 X 1 1/4
12	106715	1	IDLER ARM
13	101836	1	SLEEVE BUSHING
14	990546	2	NUT 3/8 CTR. LOCK
15	990629	2	HCS 3/8 X 2.25
16	990655	1	HCS 3/8 X 1.50
17	990517	1	WASHER 3/8 FLAT
18	990122	1	WASHER 3/8 SAE
19	102535	1	GREASE CAP
20	100472	3	RHSNB 5/16 X 1.25
21	990184	13	NUT 5/16 CTR. LOCK
22	990717	3	NUT 5/16 NYLOC
23	990799	8	RHSNB 5/16 X .625 SHORT NECK
24	990208	1	RHSNB 5/16 X 1.00
25	990362	2	SCREW 1/4 X .625 SELF TAP
26	106721	1	IDLER
27	990074	16	RHSNB 1/4 X .75 SHORT NECK
28	976978	16	NUT 1/4 NYLOC
29	990598	14	WASHER 1/4 FLAT
30	990188	1	WASHER 5/16 FLAT SAE
31	106801	1	SPRING ROD
32	106720	1	SPRING
33	101050	1	VINYL GRIP
34	990037	1	COTTER PIN 3/32 X .750
35	100141	1	HCS 7/16F X 1.5
36	106504	1	HEAVY WASHER
37	990247	1	WASHER 7/16 LOCK
38	976979	9	NUT 3/8 NYLOC
39	106809	1	BEARING PLATE
40	106811	1	BELT GUIDE
41	106812	1	BACKING
42	102067	1	KEY 1/4 X .75 SQ.
43	106751	1	SUPPORT
44	106748	1	HOSE
45	097076	1	HOSE CLAMP
46	109901	2	OVER CENTER BAND

DRIVE KIT ASSEMBLY

(539) 108960 - 42 INCH DECK
(539) 108961 - 48 INCH DECK
(539) 108962 - 52 INCH DECK
(539) 108963 - 61 INCH DECK



ITEM	PART NO.	QTY	DESCRIPTION
1	108950	1	42 SHIELD
	108953	1	48 SHIELD
	108958	1	52 SHIELD
	108959	1	61 SHIELD
2*	106739	1	SPACER
3	976998	1	ZERK
4	108951	1	HCS 7/16 X 2.5, SPEC.
5	106723	1	BELT-42
	106724	1	BELT-48
	106725	1	BELT-52
	106726	1	BELT-61
6	106744	1	STACKED SHEAVE 42-48
	106745	1	STACKED SHEAVE 52
	106746	1	STACKED SHEAVE 61
7	108946	1	DOUBLE HEX STACKED SHEAVE 42-48
	108947	1	DOUBLE HEX STACKED SHEAVE 52
	108948	1	DOUBLE HEX STACKED SHEAVE 61
8	106787	2	STOP - USED ON 42” & 48” ONLY

***NOTE:** ITEM 2 USED ON KEYED SHAFT ASSEMBLIES ONLY.

Yazoo/Kees Power Equipment
700 Park St.
Beatrice, NE 68310
PHONE **(402) 223-2391**
TOLL FREE PHONE **(877) 368-TURF**
FAX **(402) 223-4791**
WEBSITE **www.yazookees.com**

Technical Assistance:
For technical assistance, please contact your local dealer or Yazoo/Kees Customer Service.

MANUAL NO. 200897 REV A